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THE JANUARY-FEBRUARY COVER

The Indiana State Teachers College Symphonic Band. The Band will be making its annual spring educational tour of Indiana schools soon.

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Better Preparation of Administrators

"The purpose of a school in a community is to aid in the improvement of the quality of living." This function of the school under democratic leadership was stated by the National Conference of Professors of Educational Administration at its Endicott work conference and affirmed at its Madison meeting. If this purpose is to be achieved, an improved type of teacher and leader seems to be required. And for this improvement the schools, colleges, and departments of education must assume major responsibility—for through them will come practically all of the teachers and administrators who will determine the course of education.

For several years these institutions have been giving attention to improvement of the programs for training teachers. Presently, under the stimulus of the interest generated by and the recommendations proposed by the Committee on Standards and Surveys of the American Association of Colleges for Teacher Education, teacher-preparation programs are undergoing close scrutiny. Such examination, experimentation, and evaluation should be expected to bring about significant advances in the quality of the teacher-

product of the participating institutions.

It would seem, however, that if the improvement in the training of teachers is to accomplish its potentialities in actual teaching-learning situations, improvement in the quality

The *Teachers College Journal* seeks to present competent discussions of professional problems in education, and toward this end restricts its contributing personnel to those of training and experience in the field. The *Journal* does not engage in re-publication practice, in the belief that previously published material, however creditable, has already been made available to the professional public through its original publication.

Manuscripts concerned with controversial issues are welcomed, with the express understanding that all such issues are published without editorial bias or discrimination.

Articles are presented on the authority of their writers, and do not necessarily commit the *Journal* to points of view so expressed. At all times, the *Journal* reserves the right to refuse publication if in the opinion of the Editorial Board an author has violated standards of professional ethics or journalistic presentation.

of leadership through administration must keep pace. To say that institutions have hardly begun to make improvements in their procedures for the preparation of administrators is perhaps an understatement. The ground work is being laid, however. The National Conference of Professors of Educational Administration, in its Madison work conference report (*Educational Leaders: Their Function and Preparation*), identifies ten areas where the procedures of institutions training administrators need revision. They need to:

1. Formulate criteria for developing a program of preparation for educational leaders.
2. Agree upon the areas of preparation necessary for education leaders.
3. Organize a more effective program and devise more effective procedures.
4. Improve the techniques of instruction.
5. Improve educational services which have a bearing upon the instructional program.
6. Improve the administration of the preparation program.
7. Rationalize certification standards and requirements.
8. Recruit for positions in educational administration those candidates who show the highest promise of success as leaders.
9. Co-ordinate placement and follow-up services with the preparation program.
10. Improve the preparation of teachers of school administration.

It would seem that these ten statements might well serve as a beginning point in the examination of its program by any institution which assumes the responsibility for the training of educational leaders. Certainly, improvement in leadership through administration must accompany improvement in teaching in order for the school to fulfill its high destiny.

JACOB COBB

Procedures Employed In Teacher Selection

David G. Ryans

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This statement is intended primarily as a plea for higher professional standards in education and for increased attention to the selection of teachers for our schools. The fact that the results of a study of "procedures employed in teacher selection" are reported is, in a sense, incidental and of secondary significance.

It may be well to note that the original purpose of the research that led to the preparation of this paper was to survey procedures employed by administrators, and those recommended by teacher educators, for selecting public school teachers. It was hoped that many school systems and teacher education institutions would have studied the problem and that they might have developed efficacious means of judging and evaluating the abilities of teachers. In passing along such information, and so in encouraging the exchange of experiences and research, it was believed that the way might be opened to more widespread improvement in the teacher selection process.

But this "aim" of the study fell by the way. For, with due respect to the many school administrators and teacher educators who are doing a conscientious job and who are contributing to a better understanding of the requirements of good teaching and the means of identifying good teachers, the results obtained from the questionnaire employed in this study prove disappointing. Relatively few suggestions for the improvement of teacher selection came to light.

Something was learned, of course,

of the extent to which different qualities or traits are considered important by educators and the frequency with which the traditional practices employed in teacher selection are applied in different communities. These results have been tabulated and will be reviewed briefly. But more important, in the writer's opinion, is the implication that relatively little attention is being given to the tremendously important matter of teacher selection.

It seems very probable that all of us assume far too much when it comes to the choice of the teachers who are to be trusted with the guidance of our children. Some educators may not agree, but it is the writer's firm belief that the selection of teachers is the most important single job of the educational administrator. If really good teachers are obtained—and who are skillful in guiding the learning process, who are sympathetic and patient in their relationships with children, who know how to motivate children, who recognize the importance of desirable social attitudes and personal behavior, who are intelligent, and who have a broad background of understanding both with respect to the subject-matter they teach to general cultural materials—there is little to cause the administrator concern. The desirable outcomes of education are almost certain to be attained in such a situation. On the other hand, a school system may have excellent resources in the form of buildings, equipment, textbooks, and "paper" curricula, but if

the teaching is of poor quality the whole program will be ineffective and wasted. Any school system is as good, and no better, than its teachers.

True, a great deal has been accomplished in teacher training to provide the necessary backgrounds for teachers with appropriate emphasis upon the important educational objectives. This objective is significant. But it is possible that we may have given too little thought to the equally important matter of distinguishing satisfactorily between the good and the poor teacher.

It is the writer's opinion that our colleges and universities might well set up for administrators courses that deal exclusively with the "selection of teachers." If it is agreed that this is a function of the school administrator, and if the amount of the administrator's time spent on this and related problems is taken into account, there is ample justification for specialized and carefully worked-out training courses in this area. Obviously none of us is intuitively endowed with an ability to identify good teachers on sight. Why, then, should we not expect professional institutions to make available to school administrators courses that will help point out qualities important for teaching, how these qualities can be judged, how the overall picture of the candidate may be appraised, and how the final choice of a teacher may be made in light of the candidate's pattern of abilities and the requirements of the position to be filled? Few courses of this type are offered at the present time.

At this point an important and perplexing question should be recognized. No discussion of the selection of teachers proceeds far without stimulating the inquiry: "But how do we know what constitutes good teaching?"

In view of the present status of research and understanding in this area the answer, of necessity, has to recognize that no really adequate criterion of teaching success exists. Since, in addition to common elements that may contribute to success or failure in dealing with children

and guiding their development, "goodness of teaching" is likely to vary with the same teacher depending upon such factors as administrative relationship, the community, and the pupils themselves, we often discard this question and shelve it with other educational "unanswerables."

But this does not necessarily mean that the question is unanswerable. It is very probable that extensive research, carefully planned and conducted, might provide some very interesting clues to the old problem of the criterion of teaching effectiveness. It is altogether possible that there are valid and reliable means of determining the abilities and qualities that prompt us to think of one teacher as good and another as poor. In fact, the American Council on Education hopes to conduct such a criterion study of teaching in the near future. The matter has been given considerable thought and there seems to be good reasons to feel that useful results may be forthcoming. If comprehensive studies of a related nature were undertaken in several different school systems and teacher education institutions, it is altogether possible that some of the important factors in teaching would be revealed and better understood.

However, admitting for the moment our inability to establish a universally satisfactory criterion of teaching success, it is of some interest to turn to the results of the study of "procedures employed in teacher selection" and to note the traits believed to be important for teaching by superintendents and teacher educators.

In conducting this research, a questionnaire was prepared which was designed to obtain replies to such questions as the following: What qualities (interests, personal traits, behavior patterns) should a teacher possess? How may these qualities be estimated or identified? Is there a single "most important" qualification for teaching? If so, what is that quality? Should different qualifications be sought in elementary and secondary teachers? If so, what are these qualities for each group? How may

the qualifications of prospective teachers be combined for convenient appraisal and evaluation? What particularly useful devices have been adopted as a result of experience in the selection of teachers?

This questionnaire was mailed to a sampling of each of five different educational groups. Group I was made up of superintendents of schools in cities of from 2,500 to 10,000 population; Group II, superintendents in cities of from 10,000 to 25,000 population; Group III, superintendents in cities of from 25,000 to 100,000; and Group IV, superintendents in cities of over 100,000 population. In addition, a similar questionnaire was sent to the presidents of teachers colleges. A representative sampling was not undertaken. The United States Office of Education Educational Directory was used to determine the recipients of the questionnaire. Eighty communities in each of the public school groups were selected, care being taken to assure representation from each of the 48 states. In other respects the selection was random. One hundred teachers colleges were similarly selected at random from the total of 206 listed in the Educational Directory.

The qualities of teachers most frequently mentioned as ones "considered especially important that a teacher possess" are listed below. The total list included well over a hundred different traits, many of these being mentioned only a few times. It will be noted that in compiling this list an attempt has been made to classify (admittedly very arbitrarily) into three categories the teacher qualities most frequently mentioned. The first category includes qualities that can be relatively reliable and validly estimated at the time of a teacher's selection for appointment in a school system. The second relates to qualities that are somewhat less capable of reliable and valid estimation at the time of the teachers selection. And the third category refers to qualities that are particularly difficult to judge reliably and validly at the time of a teachers selection.

Qualities Subject to Relatively Reliable and Valid Estimation at Time of Selection

Health and Physical Vigor, Educational Background, Appearance, Scholarship, Intelligence, Experience, Subject-Matter Background, Voice, Culture.

Qualities Capable of Estimation with Less Assurance at time of Selection

Teaching Skill, Liking for Children, Balanced Emotional Life, Professional Attitudes (and Interest), Sense of Humor, Understanding of Children.

Qualities Relatively Incapable of Reliable and Valid Estimation at time of Selection

"Personality," Character, Cooperation, Ability To Get Along With People, Tact, Liking for Teaching, Discipline and Control, Integrity, Industry, Capacity for Growth, Adaptability, Enthusiasm.

The most frequently mentioned of all of the qualities was "personality." There are few educators who will not agree that personality is important for teaching. It is difficult, however, to define personality satisfactorily and even more difficult to obtain agreement among judges with regard to the attributes, and their manifestations, of personality. There is no way of knowing, therefore, how many different conceptions of personality the various respondents of this questionnaire were representing.

It should be pointed out that it is within this important area of personality that some of the most important research with respect to the selection of teachers must be done. Recently, studies have been undertaken by the American Council on Education having to do with the identification of the interests, preferences, and personal traits characteristic of teachers of professional promise. Such studies may lead to the improved definition of "personality" in teachers and may make way for an understanding of the means by which such qualities may be encouraged and developed.

The second most frequently mentioned quality, named as being im-

(Continued on Page 67)

The Nature of Child Growth And Development

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An extensively growing body of scientific data has demonstrated that the child is a dynamic energy system. The child constantly absorbs, transforms, and expends energy to achieve his objectives. Life is characterized by



activity, the tendency to strive to persist, to grow and develop. Dewey says, "We do not have to draw out or educe positive activities from a child. Where there is life, there are already eager and impassioned activities.

Growth is not something done to them; it is something they do."¹

These facts imply that life and growth can go on only if certain requisites are met. Adequate nutritive elements, healthful physical conditions, appropriate rest, and an opportunity to function in ways appropriate to the dynamic processes of the organism are physical requisites for healthful growth.

However, there are dangers involved in being pre-occupied in education with only one aspect of growth or behavior at a time. A unified personality can be maintained only as we recognize and provide for the organismic development of the individual. Every individual must function in a cultural matrix. He must use and carry forward social instru-

¹John Dewey, *Democracy and Education*, p. 50.

mentalities and processes in that culture. His adjustment and wholesome development depend not only upon physical requisites but also upon social requisites, too. Mutual social relationships with other individuals must be established and maintained. Effective cooperation with other individuals as a contributing member of a group dominated by common purposes and goals must be realized. He must sense himself as belonging to and appreciated by the social group within which he earns a living and finds scope for achieving his values.

An individual learns what he lives through functional activity. This activity occurs in a physical and cultural environment that is itself dynamic. The specific patterns of behavior and the goals and purposes that characterize the living personality must be viewed as outcomes of the interaction between the individual and the culture.

Physical requisites of growth are generally recognized, but cultural requisites too often go unrecognized. It must be remembered that a culture which prevents an individual from maintaining desirable social relationships will induce emotional tensions and impair wholesome growth.

Biologists tell us that the child is not born with one potential self, but many. These innate capacities, these innate powers to grow, tend to develop in a direction largely determined by the play of environment upon them. These biological facts force us to recognize that physical

character and personality are constantly changing and are constantly in a process of development. They are the emergent outcomes of transforming interaction of an individual and his environment. They are shaped and patterned by the experiences of living. They are the outcomes of the child's interaction with his parents, teachers, and other associates. They are not fixed, original possessions, given at birth.

As an individual strives to maintain himself and to develop within his culture, he gradually develops more or less true concepts of the physical and cultural realities with which he must deal. Gradually he formulates a set of principles or values which determine the objectives of his behavior and the procedures he uses to accomplish these objectives. If the individual mis-evaluates his physical or cultural realities, if his values are inappropriate to his development of effective behavior patterns, he will fail. Frustration and maladjustment will ensue. His growth will be warped.

Human growth and development are effected and directed by this interplay of the individual and his physical and cultural surroundings. The school should be concerned with providing growth-producing activities in accord with the type of culture desired. In our culture it is essential for each individual.

(1) To have such a sufficient number and variety of experiences as to build a valid knowledge of the physical and cultural realities with which he must deal.

(2) To develop such a group of generalizations and attitudes about physical and cultural realities as to lead him to employ effective patterns of behavior.

(3) To understand and adhere to such values as will promote the further evolution of society for the common good.

(4) To have increasing freedom to direct his own behavior as his knowledge of realities increases.

(5) To be given enough responsibility in socially useful undertakings as to insure an awareness of the

interdependence of persons in our society, the willingness to carry his share of the burden of social responsibility and a sense of his own personal worth and significance as a human being and an effective member of the culture.

The philosophy committee of the Progressive Education Association states:

If the individual is denied experiences appropriate to his problems and unique interests, his growth will be blocked, and his attitudes and values will be distorted. A culture which does not provide an adequate variety of experiences, or which makes inevitable qualitatively inappropriate experiences, will warp and twist growth, stunt personality. Thus growth opportunities for the individual must be continuously evaluated in terms of the possibilities presented to it for a functional interaction between an organism, which is dynamic as to growth and needs, and the culture, which is at the same time limiting and facilitating, conservative and changing in its influence on the organism.²

Individuals are different and especially is this fact true with respect to growth and development. Physical maturation is only vaguely related to chronological age and is influenced significantly by both environment forces and biochemical processes inherent in cell structure or resulting from glandular function. Individuals differ at birth and these differences increase steadily as maturation progresses. Not only are differences apparent between sexes but they are also noted among individuals of a given sex.

Many social, intellectual, and emotional reverberations in individual children result from this variation in the rate of physical maturation and have significant educational implications.

Feeling or emotion accompanies all conscious human experience. Emotions are not innate tendencies to be

behavior that at some times should be repressed or eliminated and at other times given free rein. Emotions are those experiences that result in a considerable temporary reorganization of the physiological processes of the body. If these reorganizations are too intense, too frequent, or too prolonged, both physical and mental malfunctioning may result. Unachieved desires or aspirations, threatened security, fear, or impede normal body functioning give rise to situations which stimulate emotions. In such instances the organism marshals its forces to overcome the difficulty or the emotion is depressed. The negative effect of emotions is bad, but the emotions, themselves, are not bad. Education must consider to what extent its own practices create emotional tensions created elsewhere and seek to relieve them. It must recognize that individual differences in development, abilities, and experience require individual methods of dealing with child problems. It must place the child in situations which enable him to act effectively and avoid overwhelming crises.

The individual is essentially social in nature. The child is especially adapted to social intercourse. Dewey states that:

Few grown-up persons retain all the flexible and sensitive ability of children to vibrate those about them. Inattention to physical things is accompanied by a corresponding intensification of interest and attention as to the doings of people. The native mechanism of the child and his impulses all tend to facile social responsiveness.³

Socially, this interdependence and sensitiveness is a power. As proof of this statement, observe the actions of a group that has among its members a two-year old child. Where does the attention of practically every member of the group center for at least a portion of the time? The child's attractive power has a more uniform and wider influence on the attention of group members than any other single

member of the group. By nature children are gifted with the qualities conducive to social intercourse.

Last, and of considerable importance, is the fact that a child has to learn to utilize his instinctive reactions. A child in learning to use the various parts of his body experiments in making various combinations of their reactions and in doing so achieves a control that is flexible and varied. Dewey states the thought more explicitly:

In learning an action, instead of having it given ready-made, one of necessity learns to vary its factors, to make varied combinations of them, according to change of circumstances. A possibility of continued progress is opened up by the fact that in learning one act, methods are developed for use in other situations.⁴

Education is concerned in a social condition which facilitates optimum growth for all individuals. Democracy offers great promise in this direction. Individuals become increasingly free and life becomes increasingly richer as men use intelligence to direct change. It is education's present task to enable men to examine critically the values of democracy and to reconstruct them, and their surrounding conditions, in order to transform inescapable growth that is centered upon the creation of a fuller life for all individuals.

⁴John Dewey, *Op Cit.*, p. 53.

The Institute of Labor and Industrial Relations and the College of Education of the University of Illinois have undertaken to publish jointly a monthly list of selected readings on Labor-Management Relations. Designed primarily for high school students and teachers, this list places its chief emphasis on articles and pamphlets which can be readily placed in the hands of students. Schools, teachers, or others interested in education may have their names placed on the mailing list to secure single copies free of charge by writing Ralph McCoy, Librarian, Institute of Labor and Industrial Relations, University of Illinois, Urbana, Illinois.

³John Dewey, *Op. Cit.*, pp. 51-52.

²Philosophy Committee, Progressive Education: Its Philosophy and Challenge, "Progressive Education" (May, 1941) p. 12.

A Democratic System of Athletic Awards

Kenneth L. Meyer

Football Coach
Dyer High School
Dyer, Indiana

John Wooden, who guided Indiana State athletics the past two seasons and is now head basketball coach at U.C.L.A., made the following remark, "The two toughest jobs in coaching are cutting the squad and giving awards." They plague the coach because he accepts sole responsibility for just decisions.



It is a fact that the "cut" is part and parcel of the unwelcome tasks of the coaches. He looks for the best talent and, of course, each coach has his own ideas

on what he wants in a player. He has to make his particular style of play win. The issuance of awards, however, is a matter of rewarding a player for his performance throughout the season. Both are major problems because they involve personal feelings.

Doubtless every coach would like to see all his boys receive the finest awards possible, but the competition within the team is a great tool for coaches. Another disturbing fact is that all boys do not perform with the same degree of ability. The system being used at Dyer throws the burden of awards back to the boys—in what is felt is a just manner.

The usual basis of awards is the amount of time played. Using football as the example throughout, players are usually rewarded in proportion to the number of quarters

(periods of play) in which they engaged. If a player performs only one series of downs in the quarter, he receives as much credit for it as does the player who plays every minute. Coaches often run a shuttle service (legalized by unlimited substitution rules) in order that certain players may receive their required number of quarters. In whatever light it is viewed, the whole problem of athletic awards in such a system rests on the shoulders of the coach.

The system being used by the author is not original in its entirety. Coach Jack Russell of North Georgia

College used a similar plan while at Galax, North Carolina, High School. When transplanting any "system," it has to be modified to meet the existing situation. This was the case at Dyer.

The program is based on ratings by the players. Each player rates every other player on the squad using a special rating scale. Coach Russell had his boys vote rather than rate. It is felt that the voting encourages "popularity" as a criterion rather than the more desired criteria such as condition, ability, attendance, etc. The "halo effect" is prevalent in all ratings, but it is definitely discouraged in the pre-rating instructions.

A copy of the football rating scale is shown. The items appearing on the scale were discussed with a number of coaches. Each item was selected with an eye toward objectivity, but it is realized that such intangibles as aggressiveness, "guts", etc. cannot be excluded. For the purpose of rating for awards, they are desirable.

The ratings are scored on a 5-4-3-2-1 basis for each item; thus a possible total of 20 points. The total rating for the individual by all boys
(Continued on Page 69)

FOOTBALL RATING SCALE

CONDITION

Plays hard every minute; Good wind!	Fair shape; Must take a "breather" now and then.	Can't keep up; Obviously in poor condition.
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PLAYS POSITION

Knows every duty well; Should be first string easily.	Average; does a steady job.	Can't carry out requirements of position.
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BLOCKING

Skilled; Accurate; Good body control.	Fair; will usually get man assigned.	Unreliable; can't handle body well at all; Misses key blocks.
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TACKLING

Vicious and deadly; they stay tackled!	Will usually get his share.	Tackles half-heartedly.
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facing the future

Harry E. Elder

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Indiana State Teachers College
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Introduction

The personal history which an individual writes in the chapter of childhood depends very largely upon his parents, his teachers, and his community. The child blessed with ideal



parents, excellent teachers, and a wholesome physical and mental environment has a running start toward becoming a desirable citizen. Teachers are employed for the specific purpose of helping children write the basic chapter of their lives. Later chapters depend more specifically upon each individual person—upon his life's plan which has been initiated, developed and crystallized under the guidance of older people during the period of childhood and youth. No truly great life merely happens; it is planned at an early age—at least from the standpoint of attitudes—just as surely as a great book is outlined before it is written, just as truly as the Empire State Building was blue-printed before its construction, and just as certainly as our nation was constitutionally established 162 years ago—long before the United States was to become the leading nation of the world. Each teacher and parent of our nation is duty-bound to help each child to plan the next fifty years of his life now—to help him now to acquire the academic foundations, the guiding ideals and the dynamic inspirations which will determine the personal history which he will write during the remainder of his life. All subject matter, all supplies, all equip-

ment, and all buildings and grounds must be devoted to this end.

But our primary purpose is not to discuss personal "history that must be written;" rather, it is to emphasize the well known axiom that the whole is equal to the sum of all of its parts and is greater than any one of them, or paraphrased, that the sum of all personal histories is equal to the history of all nations and all races.

We cannot think of history to be written without recalling what has been written. The history of the past is as long as the history of mankind itself. A part of the history of the past has been written—by "written" we mean "lived"—by people with vision and a part by people without vision. The part "lived" with vision is a record of brilliant achievement; The part "lived" without vision is a compilation of inglorious failures. The presence of absence of vision and ideals accounts for the difference in results.

Today and Tomorrow

We who live in 1949 can do nothing to change the record of the past, but we still have within our power the unleashing of the history of the future. Our generation has the responsibility of determining whether journalists and commentators of the future must continue to broadcast concerning "the nations' airy navies grappling in the central blue" or whether the teletype and air waves of tomorrow will carry Tennyson's message that "the war drums throbbed no longer and . . . battle flags were furled in the Parliament of Man, the Federation of the World."¹ Yes, we can sow wind and reap whirl-

¹Tennyson. "Locksley Hall."

winds or we can plant and cultivate the seeds which will expand to bless our children and our children's children in the centuries which lie ahead. We teachers, parents, and citizens of 1949—whether we have or have not vision—will determine—we are determining—what the Tennysons of the future will describe in their poetry. Together with the teachers and leaders of youth throughout the world we are deciding now whether the scientific developments of the present and the future will be used for good or evil—whether mass production, aviation, television, radar atomic energy, etc., will bless or curse our descendants in the generation of twenty-five, fifty, seventy-five, and one hundred or one thousand years hence. The present is the parent of the future.

But we can not rest upon an idealism that is not accompanied and undergirded by an unwavering determination to achieve realism. Today—in the period of reconstruction following the termination of the bloodiest and most Colossal Armageddon of human experience—it is highly important that the leaders and teachers of the United States possess a worthy and comprehensive perspective of the challenges, opportunities and obligations for world service, human reconstruction, good will and permanent peace; it must be recorded, also, by the historians of the future that we Americans, especially inspired by this Vision, went forth to champion the cause of all humanity—white, black, red, yellow, and brown—within and without our hemisphere. Any program, less comprehensive, is unbecoming to the citizenship of the nation currently considered the world's greatest.

The Birth of a New Era

It can be written one hundred or one thousand years hence—it must be written if civilization is to endure—that man became intelligent enough in our century to apply scientific knowledge toward vital rather than lethal ends. It must become a part of recorded history that the United States of America was the place, and that the United Nations Conference at San Francisco in 1945 was the oc-

casion of the kick-off for the greatest global game of peace, world-wide security and good will in which our nation or any nation ever had the honor, the opportunity, and the obligation to be a participant. It must become a fact for eternity that the *Beachhead for Peace* established by this conference of nations in 1945 was never lost and that after the first use of the atomic bomb in the last days of the Second World War the leaders of all nations—the victorious and the vanquished—became thoroughly and permanently convinced of the futility and foolhardiness of further armed conflicts.

The Direction and Speed of Social Change

As leaders of world thought during the period of turmoil and confusion through which the world is now passing, we Americans must have an adequate sense of the direction we are traveling and of the speed we are making. We must become aware of whence we have come, how far we have progressed, the goal we are seeking, the right road to follow, and the contributions we can and must make. At present many of us are as confused with the speed and direction of our travel—socially, politically, and economically—as we would be with the speed and direction of the travel of a man on a swiftly moving train. To draw a parallel let us assume a man walking west at the rate of five miles per hour through the aisle of a train traveling east at sixty miles an hour on an earth rotating on its axis toward the east at a rate—at this latitude—of between 600 and 700 miles per hour and, at the same time, revolving in its orbit at the rate of 66,000 miles per hour around a sun flying through limitless space at an incalculable or unknown rate. How fast and in what direction is the man on the train really traveling? How fast and in what direction are we, the human species, really traveling—socially, politically, economically?

According to Will Durant, one of our contemporary scholars and philosophers, we may secure a sense of the direction our civilization is traveling from the light which shines

ahead of us from the history of mankind which is behind us. "The real history of mankind," says Durant, "is found in ten steps upward, which, once taken, were never lost, and which were added each to those that went before." While there has been much overlapping and concurrency in the achievement of these steps, historians generally agree that they have occurred in approximately the following order:

- (1) The development of speech.
- (2) The taming of animals.
- (3) The discovery of fire and light.
- (4) The development of agriculture.
- (5) The coming of social organization.
- (6) The development of morality.
- (7) The acquisition of an esthetic sense.
- (8) The discovery of the means of communication.
- (9) The development of science.
- (10) The organization of a formal system of education.

Because of this gradual ascent we cannot conceive a static mankind. At any given point in the past the human species has been evolving from its then level of civilization toward something higher and better. "The ladder by which we rise from the lowly earth to the vaulted skies . . . round by round²" has been gradually, continuously, and very certainly extended since the first appearance of our earliest known ancestors. We cannot think of nature reversing this process either now or later. We can only believe that we are in process of adding an eleventh round to the ten which the ladder already has. Every thinking person believes that this current upward surge must be the achievement—by all segments of the human race—of a warless, povertyless, Golden Rule, world-wide civilization in which all the freedoms of an ideal democracy will prevail.

To make our contribution to the realization of this eleventh increment in civilization we must also be aware of the speed with which we are trav-

²Holland, Josiah Gilbert. *Gradation*, Stanza 1.

eling—socially, politically, and economically. When The University of Chicago Round Table was organized in 1951 it was possible for those participating to look ahead and select topics for discussion several months in advance and, at the same time, to know that they would be timely and pertinent when the date of the broadcast arrived. In 1941 on the tenth anniversary of the founding of the Round Table the same three men who had initiated it ten years earlier stated that they could no longer look ahead to know what would be appropriate for discussion on a given Sunday; by 1941 civilization was changing so rapidly and still continues to change so rapidly—that they could only look around to find the problem most suitable for discussion on any given date.

We were all taught in school a few years ago that history could be divided into three main periods: *Ancient*, from earliest known human events to 800 A.D.; *Medieval*, from 800 A.D. to about 1492; *Modern*, from the time of Columbus to the present. But on the occasion of the celebration of its tenth anniversary The University of Chicago Round Table declared that in terms of actual conditions it would be far more appropriate to say that Ancient History lasted until 1918 A.D., that Medieval History extended from the end of World War I to 1951, and that Modern History began in 1951. In his book, "Faith for Living," published in 1941, Lewis Mumford stated that those who did not realize that a thousand years has passed since 1951 were hopeless! Undoubtedly more real social, political, and economic changes did actually come in the ten years preceding Pearl Harbor than had occurred in the thousand years immediately preceding the invention of the printing press; and it could be similarly argued that two additional millenniums have passed since Pearl Harbor—one before and one after the dropping of the first atomic bomb on August 6, 1945.

Within the first half of our own century we have seen the arrival of
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Mitigation for the Menace Of the Poorly Trained Teacher

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One of the most perturbing situations facing those responsible for the planning and operation of public education rests with what to do about the poorly trained teacher. With over



a thousand institutions engaged in the training of teachers, and with hundreds of different patterns of training in operation, it is readily accepted that many teachers are regularly admitted to the profession of teaching who are very poorly trained. There is additional defense for the premise that many teachers are poorly trained with the admission that teacher education, at best, is not based on definite knowledge about the kinds of individuals or the qualities of pre-service training experiences which make for successful teaching. Moreover, there is no immediate respite in sight. It appears probable that we shall have poorly trained teachers with us for decades to come even though they are acceptable from certification requirements. As a matter of fact, with the probable rapid increase in teacher trainees during the next ten years, we are quite likely to see an ever-increasing number of poorly trained teachers. This increase in teacher training appears inevitable as a result of the combined factors of possible recession, unemployment, a higher percentage of college graduates in the total population, teacher

shortages, and better economic and social conditions for teachers.

Much has been written about the menace of poorly prepared teachers and of inept teachers in general. The literature has been amply supplied with articles dealing with the perennial question. "How professional is tolerance?" It is readily admitted that many ineffective teachers are granted impunity in the profession of education because of failure to take full cognizance of professional standards which should be required of all members. It is one of the strange paradoxes that many work so diligently for execrable tenure laws while at the same breath they plead for higher professional standards of competency for the teaching profession.

It is the purpose of this paper to propose suggestions to assuage the problems created by poorly trained teachers, or, in some cases, materially obviate the problems. It is further maintained that through cooperative efforts between the public school systems and the teacher training institutions, present and future menaces of poorly trained teachers can be attenuated. Moreover, these joint actions will pay great dividends through a renaissance of rapport between public schools and higher education which could reconstruct a matrix for pre-service education of teachers in higher education sufficiently adequate to insure capable and inspirational teachers for all of the pupils in the classrooms of tomorrow.

The proposals and recommendations follows:

1. Public school systems should assume increasingly responsibility for training teachers. There is ever-increasing belief that if public schools are to have the kinds of teachers they need, they will have to assist by providing the laboratory for part of the training. Student teaching should be carried on at least partially in a typical public school on a full time resident basis for a minimum of six weeks of time. This should be a culminating experience after a long sequence of well integrated professional training courses, each of which has given some attention to participatory work and prepractice-teaching teaching experiences with children. In addition, directed and well planned observations should be carried out in normally-conducted public schools as well as in teacher training institution-controlled laboratory or demonstration schools. We have no real hope of improving student teaching except through the devices or plans proposed in this recommendation.

2. Public school systems must give increasing attention and participation toward basic research studies affecting their programs. These basic research studies include such meaningful studies as the holding power of schools, hidden tuition costs, patron evaluation of school systems, and pupil participation levels in the total school-community enterprises. There are many areas in which such studies are being conducted on a regional basis for the benefit of the participating school systems. A natural outcome of these studies is the upgrading of the instructional services if through nothing more than acquainting the staffs with pertinent informations.

3. Public school systems should cooperate diligently in the development of internship programs and cadet teaching programs. We are moving more in a direction of internship and cadet programs in the preparation of teachers. Internship programs prepare, other things being equal, a superior teacher because of the nature of experiences provided. There exists considerable confusion about what constitutes an internship and a cadet

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A Survey of Practices In College And University Science Teaching

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The problems facing the science instructor are quite varied and the solutions to these problems usually are a result of the instructor's attempt to do what he feels is most satisfactory in each case. This report is the result of a survey to find how others



solved some of their problems. The authors felt in their own situation that more effective work could be done by some program changes in their department. The two chief problems were (1) the fact that their program al-

lowed for only a one-hour laboratory period, and (2) the science instructor's load was too heavy to allow him to do his most satisfactory work.

This survey, then, was an attempt to determine some of the common practices in science departments in liberal arts colleges, teachers colleges, and universities of the middle west.

Results of this survey indicate that among college science departments (1) there is a wide variation in clock hour, credit hour ratio for laboratory, (2) the lecture-laboratory load of science instructors exceeds the load of non-science teachers, (3) the use of 2-4 hour laboratory periods causes some program problems, and (4) various procedures are used to handle students who require extra laboratory time.

The departments responding to the survey and represented here were:

Biology and Physiology Departments (12 schools); Botany Departments (8 schools); Chemistry Departments (21 schools); Geology and Geography Departments (6 schools); Physics Departments (15 schools); Zoology Departments (5 schools); Science Division (all combined) (7 schools).

The science department that answered the questionnaire, 75 out of 92 (better than 80 per cent), represented the following schools:

Ball State Teachers College, Muncie, Indiana; Butler University, Indianapolis, Indiana; Canterbury College, Danville, Indiana; Central State Teachers College, Stevens Point, Wisconsin; Earlham College, Richmond, Indiana; Eastern Illinois State College, Charleston, Illinois; Evansville College, Evansville, Indiana; Franklin College, Franklin, Indiana; Hanover College, Hanover, Indiana; Illinois State Normal University, Normal, Illinois;

Indiana Central College, Indianapolis, Indiana; Iowa State Teachers College, Cedar Falls, Iowa; Kent State University, Kent, Ohio; Manchester College, North Manchester, Indiana; Mankato State Teachers College, Mankato, Minnesota; Michigan State Normal College, Ypsilanti, Michigan; Michigan State College, East Lansing, Michigan; Notre Dame University, South Bend, Indiana;

Purdue University, Lafayette, Indiana; Southern Illinois State Normal University, Carbondale, Illinois; St. Joseph College, Collegeville, Indiana; Wabash College, Crawfordsville,

Indiana; Western Kentucky State Teachers College, Bowling Green, Kentucky; Western Illinois State Teachers College, Macomb, Illinois; Western Michigan College of Education, Kalamazoo, Michigan.

In gathering and compiling the data, the authors asked eleven questions of the various science departments of these schools. These questions were selected by the authors as they seemed to have the most bearing on our particular problems. A listing of the questions is as follows:

1. What is the method of determining credit hours for students in your school? Assuming lecture or recitation periods are equivalent in both clock hours and credit hours, what ratio is used to convert laboratory hours to credit hours?

2. What is the average lecture and recitation load of the regular full-time faculty in your department?

3. What is the average laboratory load of the regular full-time faculty in your department?

4. What is the average combined lecture and laboratory load of the regular full-time faculty in your department? Clock hours per week? Credit hours per week?

5. How many members of your department lecture only? What is the average load of such individuals?

6. How many members of your department have their entire load in laboratory instruction? What is the average load of such individuals?

7. What is the average teaching load of the regular full-time faculty of your school in non-science fields (i.e. mathematics, English, social studies, etc.)?

8. Do laboratory periods of two or three hours duration interfere with the program scheduling of any non-laboratory subjects in the college?

9. Are your laboratories open for students at additional times other than their regularly scheduled class?

Questions 10 and 11 had to do with the number of students enrolled in the department and the number of full-time faculty in the department.

Summary of the Findings

Some of the significant practices of the various science departments answering the questionnaire are contained in the following summary:

a. The average ratio used to convert laboratory hours to credit hours was 2:1. The high was, 4:1 the low was 1½:1. A number of schools have a lighter load in respect to laboratory for beginning courses as in beginning chemistry, the ratio was 2:1 but in upper classes 3:1.



b. The average lecture and recitation load of the regular full-time faculty in the various science departments was 8.5 clock hours per week. The high was 15 hours; the low was 2 hours. Some schools vary the load from quarter to quarter with department heads getting some time for administration. One school said, "We have 6-7 hours which is a 25% overload." Another had 9 hours and thought it was too much.

c. The average laboratory load of the regular full-time faculty in the various science departments was 10.5 clock hours; the low was 5 clock hours equivalent to 0 credit hours. Numerous variations are in practice in regard to the laboratory work. One department gives medical service, others use student assistants to lessen the load, another uses graduate assistants to prepare and get materials for laboratory ready, others run some labs concurrently to help relieve the load.

d. The average combined lecture and laboratory load of the regular full-time faculty in the various science departments was 16.5 clock hours per week, and 12.7 credit hours per week. The high and low for clock hours per week were 27.0 and 10.0 respectively; the high and low for credit hours per week were 17 and 7 respectively. Institutions have various practices in regard to the faculty load, as one uses undergraduate assistants (with faculty supervision) almost entirely. One of the department heads "attempts" to equalize the loads.

e. Having members of the science department lecture only is not a very common practice. One unusual situation was given where a blind professor did the lectures only.

f. Likewise, having members of the various departments conduct laboratory only is an uncommon practice. Several schools use assistants, either graduate or undergraduate, to help the teaching load situation.

g. The average teaching load of the regular full-time faculty of non-science fields was 14.5 clock hours, and 14.5 credit hours per week. The high was 18 clock hours and 17 credit hours per week. The low was 10 clock hours and 10 credit hours per week. Several schools have varying load for the different non-science fields; some have English, especially composition, only 12 audit hours, and same for department heads.

h. The majority of science departments find that extended laboratory periods interfere with the program scheduling of non-laboratory subjects in the school. Fifty-one signified that there was interference; twenty-one stated there was no interference. A variety of methods are used to try to eliminate the schedule problems, by duplicate sections, etc.; but all feel the extended laboratory is essential to good science work.

i. The range in the number of students enrolled in the science departments was 96 to 6,000. The range in the number of full time faculty in the departments was 1 to 22. The student faculty ratio range was from 1:22 to 1:128.

Ryans . . .

(Continued from Page 59)

portant for teachers to possess, was "health and physical vigor." Educational background, appearance, character, and cooperation followed very closely in the tabulation. Teaching skill, liking for children, and scholarship were also regarded as important, but were mentioned somewhat less frequently.

A relatively high degree of agreement existed between the qualities

mentioned by the superintendents of different sized cities and the teachers-college presidents who cooperated in the study. It is interesting to note, however, that in the smaller communities the emphasis was upon somewhat different qualities than in the larger cities. Appearance, personality, character, and cooperation were most frequently mentioned in Group I (communities of 2,500 to 10,000 population), while teaching skill was mentioned only twice, professional attitude twice, and health only once.

A few of the replies to the questionnaire called attention to the serious teacher shortage that prevails and to the difficulty of setting up and adhering to any standards. It is impossible to resist comment upon this situation. There is no question but that teachers are in great demand. Admittedly, there are far too few to supply the need. But, in the writer's opinion, it is deplorable that, under any circumstances, standards of selection in this all-important area of teaching be disregarded to such an extent that an administrator writes (and these statements are quoted from replies to the questionnaire): "If they are warm, we take them." "We can't select teachers: if they apply, we hire them."

Conditions like this must not exist in American education. Education has an obligation both to itself and to the public to demand that teachers meet certain minimum requirements. The shortage of practitioners in the field of medicine has not brought about the relaxation of professional standards. The requirements for physicians and surgeons are more rigorous than ever before. The ultimate purpose of such high standards in medicine is, presumably, to assure the public of competent care and treatment. It is a responsibility of service. Educators also belong to a service group. The service they provide is an important one. There is no way that they can justify lowering the standards of that service.

It may be expedient, also, for educators to give thought to the fact that their efforts in the interest of better salaries for teachers are now showing

results. Many boards of education have made permanent adjustments and state programs are being introduced. There is good reason for educators to be hopeful of the future so far as improved salary schedules are concerned. With this in mind we must recognize the necessity of assuring the public, and ourselves, that teachers are *worth their salaries*. It seems likely that too often in the past we may have excused poor teaching because the remuneration was miserably and unreasonably small. But merely by increasing his or her income we can not automatically improve the job the teacher is doing. Unless something is done about selection standards many cases of higher salary will be simply matters of buying incompetency at a higher price. However, if *salaries are raised and if high standards are properly emphasized at the same time*, the desired outcome is likely to follow, i.e., the teacher's place in our social order will be appropriately dignified. And when such a state of affairs is reached the country probably will not be faced with too drastic a shortage of teachers.

Returning now to the results of the study of procedures employed in teacher selection, the *second question* had to do with "sources of information" most frequently employed in judging the teacher's qualifications. Tabulation of the results provided a list that was very limited in number of sources mentioned. With one exception they were the traditionally employed sources: interviews, transcripts and records, references, classroom observation, and examinations or tests. The exception noted above referred to "measures of pupil progress."

There is no way of knowing whether or not the administrator who mentioned "measures of pupil progress" really tried to obtain objective estimates of the extent to which the prospective teacher's pupils progressed (and if so, in what area). This is an important, and at the same time, a very complex problem. Professor A. S. Barr, at the University of Wisconsin, has undertaken interesting research on "pupil progress" in con-

nection with his studies of teaching efficiency. This appears to be a particularly promising source of information about the teacher, but at the present time the measurement of pupil progress may be too involved to be practicable except for research purposes.

Classroom observation was also frequently named as an important source of information. It is interesting to note the words "if possible" frequently added when this source was mentioned. It is probable that, desirable as it may be, classroom observation is not often taken into account in the employment of teachers. If methods for classroom observation could be refined to increase their reliability and if it were possible for the employing administrator to observe the performance of each teacher before appointment, there is no doubt but that this would aid materially in our attempt to improve teacher selection.

In replying to the *third question*, "Is there a single 'most important' qualification that an employing school official should look for in selecting a teacher?" the respondents were about equally divided. There was some tendency for the school superintendent to believe this to be true, whereas the teachers-college presidents, as a group, felt that the *total pattern* of abilities always should be the primary consideration. Those who did feel there was a single "most important" quality referred most frequently to such qualities as personality, character, and liking for children.

There was general agreement that, except for differences resulting from specialized training, the qualities to be sought in elementary and secondary teachers were similar. Approximately 70% of the respondents believed this to be true. Of the small group who did feel certain qualities were differentially important for elementary and secondary teachers, the traits most frequently mentioned as requirements for elementary teachers were "understanding and liking for small children," "sympathy," and "possession of special abilities in art, music, etc."; as requirements for sec-

ondary teachers, "understanding and liking for adolescents," "knowledge of subject-matter to be taught," and "higher scholarship."

When the questionnaire was prepared it was felt that an important concern in the selection of a teacher was the manner in which the candidate's various qualities were combined and compared in order to provide a basis for the final evaluation of the teacher's suitability for a position. The replies, however, revealed a general lack of consideration of this matter. "Overall subjective judgment" was the means most frequently named. As might be expected, "eligibility lists" were mentioned more frequently in cities of over 100,000 population than in the other groups. "Qualification profiles" were mentioned frequently by the teachers-college presidents, but apparently these did not enjoy widespread use in practice.

The questionnaire also asked for the description of any particular useful teacher selection devices that had been developed. Very few replies were received to this question, and no particularly practicable or unique methods were revealed.

In conclusion, the writer wishes to point out that the value of this study for the constructive purposes is obviously limited by its failure to reveal the use of other than traditionally unreliable practices in teacher selection. Apparently many school administrators still select their teachers through what one superintendent, in replying to the questionnaire, called a "sixth-sense" he had developed. Apparently, it is a common practice for the administrator to read an applicant's letters of reference; to look at the college record; to judge the individual's appearance, personal and social qualities, etc. in a short interview; occasionally to go to the trouble of observing the prospective teacher in the classroom; and then to proceed, without further ado, to accept or reject the candidate.

As opposed to this type of teacher selection, an increasing number of school administrators are making serious efforts to set up procedures that enable them to make their choices on sounder bases. They try to maintain

relatively high and objective standards and seek to arrive at a reliable and valid composite picture of each candidate under consideration. Thus, some progress is being made. But there is much more to be accomplished if education is to become truly professional. It is devoutly hoped that by relentlessly pleading the cause and calling attention to the importance of teacher selection, serious consideration of the qualities that contribute to good teaching, and the development of means of identifying those qualities in prospective teachers may be encouraged.

Meyer . . .

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is divided by the number of boys rating. This average score is the criterion for the award. A boy must have an average score of 16 or more to earn a major letter. To earn a minor letter he must place in the category of 14.0 to 15.99 inclusive. With this arbitrary values, Dyer had 14 major lettermen and 6 minor lettermen.

The players like this system and voted to adopt it as a part of their Letterman's Club constitution. Some were worried about the factor of personal likes and dislikes, but this gives the coach another tool with which to work on the problem of teamwork. The final average upon which the award is given is gleaned from the composite opinions of all boys on the practice and playing field. The author finds that they are excellent judges.

Elder . . .

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and have come to take for granted the automobile, the aeroplane, the radio, radar, jet propulsion, the atomic bomb and hundreds of other spectacular gadgets, machines, and assembly lines unknown and unimagined in 1900. Before 2000 A.D. countless other discoveries and inventions destined to have equally significant effects upon the progress of mankind will be commonplace. We are traveling at such a pace that both Washington and Lincoln, if they

pay a return visit to the earth, would feel far more at home in the Egyptian civilization of King Tut (ankkhamen) than in the world of Truman, Atlee, and Stalin! We who are privileged to live now must awaken to the fact that *tomorrow is here!*

"One World"

To assist and direct the next upward step of *History Which Must Be Written* if the progress of mankind is not to be reversed, we Americans must understand and cooperate with the world revolution—of many phases—now in progress. We must bring about this inevitable change by peaceful and gradual *evolution*. We must comprehend and transmit to the rising generation the international and interracial significance of the sequential stages in transportation represented by birch bark canoes, steamboats, covered wagons, railroads, airplanes, statospheric travel, jet propulsion, etc. Our habits of thinking and acting must change accordingly. We must realize that a radio broadcast originating in Washington can be heard simultaneously in London, Moscow, Paris, Chungking, and Tokyo. We must understand that there is only "One World" and that all of its inhabitants should be citizens entitled to equal opportunities. It must be written by 2045 A.D. that one hundred years earlier—1945 A.D.—an instrument called the "atomic bomb" demonstrated to the human species the necessity of accepting as axiomatic that the whole of society is equal to the sum of *all* of its parts regardless of race, color, inheritance, nationality or economic status. "One World"—as tiny as the planet, Earth—is too small and too fluid to permit or justify discrimination against *any* of its citizens.

Some General Educational Implications

To determine the history which must come to pass if civilization and the human race are to survive, the leaders of every race and every nation must recognize that the only way to have an improved world is to have people improved in literacy, in ideals, in health, in preparation for chosen occupations and professions, and in

ability to live cooperatively with all segments of the human family. People—good and bad—work and play with other people. Peoples—from the least efficient to the most efficient—work the mines, make the material gadgets of civilization, discover and use atomic energy, make peace, and declare war. A greater and better America—a greater and better world—will come only as we improve people. Because of America's position of leadership no other nation or people has a greater opportunity or responsibility!

The Problem in the United States

The best indication of the educational problems on a nationwide basis in the years immediately ahead is furnished by the enrollment trends which are certain to follow the birth-rate increases of recent years. On the basis of 30 pupils for each elementary teacher and 27 for each high school teacher the number of teachers needed in the United States in addition to the requirement in 1946 will be approximately as follows: for 1947-1948, 13,500; for 1948-1949, 33,000; for 1949-1950, 64,500; etc., until 1955-1956 when the total number of *additional* elementary teachers needed will be 154,200. While the increase in teachers needed on the secondary level will not be noticeable until later there is every indication that by 1960 the United States will need 112,500 more secondary teachers than in 1946.

Colleges and universities face problems similar to those confronting elementary and secondary schools. With the current college enrollment of over 2,300,000—1,000,000 above the peak of pre-war years—about 50,000 more college instructors are needed in early post-war years than ever before. With increased numbers graduating from high schools each year there is no reason to expect any significant change in this trend in the foreseeable future. It is freely predicted that the world's population will increase from its present 2,250,000,000 to 2,438,000,000 by 1955. If mankind should continue to increase at the present rate, the year 2000 will be confronted with a population 50% above that of 1946.

Because of advantages in the United States over those in many other parts of the world there is every reason to believe that population increases here will be as great or greater than in the world as a whole.

What the preceding trends imply from the standpoints of the additional teachers on all levels is obvious; plant expansion is just as obvious and just as mandatory. In 1941 the industries of our nation were asked to produce far beyond their existing facilities; they expanded their facilities, produced the necessary equipment and the war was won.

It is just as urgent now to furnish additional educational facilities to win and to keep the peace. This means that each state must take action at once to expand college, university, and professional school facilities if we are not to deny their democratic birthrights to many capable young people in the decades immediately ahead. To meet the reasonable demands of the colleges of 1960, it is conservatively estimated that, if privately controlled higher educational institutions will increase their facilities by fifty percent by that date, state controlled institutions must double their present facilities.

But this trend toward more education for more of the people is not a new trend; it has been noticeable for several decades. Even with a decline in the birthrate in the future, the absolute number of persons of school age will not dwindle by the end of this century. The estimates of the Bureau of the Census indicate that this will be true not only at the elementary level but even more certainly true at the secondary and college levels since the proportion who attend at these levels is still increasing and will continue to do so whether the total population of these groups increases or not. Present trends continue those of the last fifty years or longer. Census figures for 1940 show:

(1) that of all persons 25 to 29 years of age approximately 47% attended high school from one to four years, that 15% attended college

from one to four years; (2) that for persons 50 to 54 years of age the corresponding figures are 22% and 8% and (3) that of all persons 75 years of age only 15% had attended high school and only 5% had attended college. The median number of years of education completed in 1940 by persons of all ages was 8.6%; projections for 1950 and 1960 indicate medians of 9.0 and 10.5 years, respectively. The youngest age at which more than 90% of our children have been in school has been lowered from 11 years in 1910 to 7 years in 1940 and 6 years in 1946; that they also remain in school longer today is indicated by the fact that in 1910 only 59% of the children from 14 to 17 years of age were in school while in 1940 the percentage was 79. These trends, interpreted, mean that while in 1940 about 7.5 million Americans over 25 years of age had attended college, this number will reach 15 million by 1960—a gain of 100%! By the same reasoning there will be, by 1960, about 6.5 million college graduates in comparison with the 3.4 million in 1940. Apparently the citizens of the leading nation in the world today have great faith in education.

A Glance at Indiana

But what are the educational implications of current population trends for Indiana? The Indiana State Board of Health reports the enumerated population of Indiana on April 1, 1940, to have been 3,427,796 and that the estimated population on July 1, 1947 was 3,855,000—an increase of 407,204 or almost 12% in a period slightly more than seven years. The birthrate in Indiana has increased so rapidly since 1940 that by 1955 approximately 5,040 more teaching units will be required for grades 1 to 6, inclusive, than are needed during the school year of 1947-1948, while only 910 additional units will be required through grades 7 to 12, inclusive. By 1959, however, grades 7 to 12 will require about 4010 more units than in 1947. Obviously, very specific guidance in high schools and colleges will be needed to secure a net in-

crease of more than 3000 in number of elementary teachers in Indiana by 1955. By the same reasoning the same guidance should prevent the preparation of a net gain of more than about 1000 secondary teachers during the same period. The only hope of preventing a surplus—of secondary teachers within this period depends upon the surplus being employed to teach in colleges and universities or re-educated so that they may meet requirements for teaching in the elementary schools. This situation is so general throughout the nation as a whole that at least 100,000 more elementary teachers will be needed in 1955 than are required in 1949.

Conclusion

If it were possible to establish and maintain an optimum population level—for the world as a whole and for each individual country—and to control migrations which tend to bring population into imbalance with supplies of food, shelter, clothing, and other necessities for civilized societies, the problems of the human race would be greatly simplified: but since this condition will not, in the foreseeable future, even approach realization, the most advanced individuals and nations must continue to guide and lead the less fortunate peoples of the world toward good will, mutual understanding, and the greatest possible development of human values which are inherent in all segments of the human race. The education of each citizen of every nation to the point which would enable him to make his maximum contribution to a world society is the greatest challenge to the world's leaders during the remainder of our century.

McGrath . . .

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teaching program. In this connection, internship has the connotation of extended teaching under supervision of the training institution but with partial remuneration for services. Cadet teaching is herein interpreted as a regular year of trial teaching under

supervision as a part of the total teacher education program.

4. Public school systems could well afford to readily accept or even put a premium on the trainee graduating from a well-reasoned bona fide experimental program of teacher education. We have little other means to bring about real improvement in teacher training except through new findings gained via experimental programs. We should have hundreds of experimental patterns in operation, but actually we have very few, largely the result of apathetic planning and fear of not finding good positions for the individuals trained under such programs. There is supporting evidence that students participating in good experimental programs are superior teachers.

5. Public school systems would do well to lend support to the gradually increasing tendency to require a minimum five-year perservice training for teachers with uniformity of certifying requirements in all states. We are not far enough removed from teacher shortages to make such a requirement uniformly applicable, but we should achieve sufficient reserve of teachers within four years to make the adoption of a five-year preservice program plausible.

6. Public school systems can do much by utilization of educational consultants, workshops, institutes, and clinics to rehabilitate weaker teachers and to vastly improve good teachers. Very little has been done along this line except in a very few school systems. This lethargy has resulted largely because of lack of vision and leadership to find a way to provide more of these important avenues for growth and improvement. Schools having experience with high calibre workshops and inspirational speakers have reported more value in giving a shot in the arm in this manner to the instructional staff than by any other means.

7. Public education should lend support for reorganization of the state departments of education or public instruction to one which is non-political with an appointed commissioner to administer the office. Some states

have brought about such a transformation. Much can be done by an effective state department of education to alleviate the dangers poorly prepared teachers foist on our school children.

8. Public education should study means of alleviating the family problems which are faced by its teachers who have family responsibilities. The very people who should have the most wholesome family life and provide the best possible parental influences are the teachers who provide the leadership for our school pupils. Yet by the very nature of restrictions imposed upon them by economic duress, professional activities, and social inhibitions, they are unable to participate in family fun to any appreciable degree. The constant drive for advanced degrees and to perform the myriad extra and outside tasks concurrent with school work deprives one of the opportunity for exuberant living.

9. Public school systems can work toward more extensive year around school programs with emphasis on enriched experiences. Such a setting should expedite formation of child centered schools with a basic core of common learnings for all pupils. These sorts of programs require a few specially trained key teachers to implement the pattern of teaching. Some of the weaker teachers will be caught in the swim of this activity and will grow professionally in spite of themselves.

10. Public school systems can develop criteria for selection of administrative staff which will place a premium on specialized training for the particular type of administrative responsibility expected for the aspirant. The tendency to promote people to these positions for reasons which were distinctly non-professional has done much to increase the number of poorly trained teachers. This is explainable partially from the standpoint that many such administrators never learned anything about the art of selecting personnel for particular needs.

There are many other ways in which the menaces of poorly trained teachers can be circumvented. The

menace is not as serious as is a complacent attitude and too much of an over-tolerant or magnanimous feeling. The sobering thought is that the harm done to our youth through poorly trained teachers is irreparable. All our efforts toward major improvements are largely vitiated unless proper steps are taken to obtain maximum service from our instructional staffs.

We cannot afford to be merely garrulous or generic about the problem. The only alternative available to exculpate ourselves is to examine every facet of the total problem and through cooperative efforts eliminate as many causative factors for poorly trained teachers and hence proceed to rehabilitate and improve those who will be with us in public education. There are some bases to appear sanguine about this matter, and the excellent reports we have at hand of public school systems and teacher training institutions working together tend to ameliorate the problem. The future is filled with thrilling possibilities, and we can confidently attack our problems with decorum and unlimited energy.

Book Reviews

Children With Delayed or Defective Speech by Sara M. Stinchfield and Edna Hill Young.

This book is the result of the combined efforts of the theoretical and practical approach to speech problems. Dr. Sara Stinchfield is a trained psychologist and has taught in colleges and universities in America. She has written extensively with special emphasis on speech defects of children. Mrs. Edna Hill Young, who is Principal and Director of the Hill-Young School of Speech Correction, University of Denver, has worked for many years to develop and improve the speech of children. This book gives a photographic account of the Hill-Young method.

Part I, *The Problem*, deals with the development of speech, speech mechanism, and psychological fac-

tors. Causes of delayed speech are considered and physical examinations, mental testing, and hearing testing are discussed.

In Part II, Practical Therapy, by Edna Hill-Young, the emphasis is on the moto-kinesthetic means of correction with the therapist giving definite stimulation to lip and jaw movements. After direct kinesthetic training is completed, the child imitates from auditory stimulation. A complete collection of photographs show how the therapist guides the child in producing the speech sounds. An interesting and easily understood explanation of each sound supplements each photograph. In addition, photographs of word patterns give the sequence of movements for the entire word.

While many speech correctionists may not prefer to rely solely upon the moto-kinesthetic techniques in working with small children, certainly speech therapists will be interested in reading this book for the excellent background provided in Part I, and for a graphic account of the techniques which Mrs. Young has developed and used with a great deal of success at Denver.—Helen Zwermer Carr.

Psychology for Living by Herbert Sorenson and Marguerite Malm, Mc Graw-Hill Book Company, New York, 1948, 637 pages, \$3.00

True to science and in attractive dress, this book deals effectively with common problems of high school and later life. Free of superficiality characteristic of much so-called popular writing, and free of unnecessarily technical language, *Psychology for Living* is informative, and it is well designed to bring out discussion of vital topics. Teachers desirous of stimulating self-expression and scientific thinking, as well as of imparting information, will find this lucid and dignified book suited to their purpose. Well-selected references, a list for students and a list for teachers, are included.

Some of the topics discussed are heredity and environment, mental ability, growth of physique and of

personality, straight thinking, effective study, courtship and marriage, the choice of a vocation and requisites to holding a job, habit as affecting personal welfare, frustration, mental conflict, and mental health. The book contains a limited discussion of the nervous system; it shows in a general way the part the nervous system play, and should satisfy the student's curiosity regarding the mechanism underlying his behavior.

The bearing of the topics of *Psychology for Living* upon the immediate and future needs of high school students is in most cases made evident, and topics are illustrated from the lives of adolescents. Emphasis is properly distributed, and the book hangs together as a unified whole. The authors seem at home with their subject in all of its phases.

One might object to the inclusion of some of the material of this book.

By presenting a long list of superstitions the authors, although capturing attention, may inadvertently defeat their purpose. Such minor objection can, however, be raised regarding any publication, and this objection may be debatable. Some of the material of *Psychology of Living* seems a little obvious, yet it should be remembered that you cannot repeat too often what students or people in general have not sufficiently learned. A gap between knowing and doing is not uncommon, and this book should help bridge such gaps.

The many maladjustments of adult life today, as of other days, emphasizes the need of early insight into personal problems. Since *Psychology for Living* has textbook thoroughness presented in clear and interesting style, it should help further the teaching of this subject in high schools.

—Wendell White

CONTRIBUTORS TO THIS ISSUE

JANUARY, 1949

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MARK THESE DATES

- March 25-26

Indiana Council for Social
Studies

- March 28

Registration for Spring Term

- April 7

College Choir Concert

- April 8

Senior Music Day

- April 8-9

Indiana School Librarians
Conference

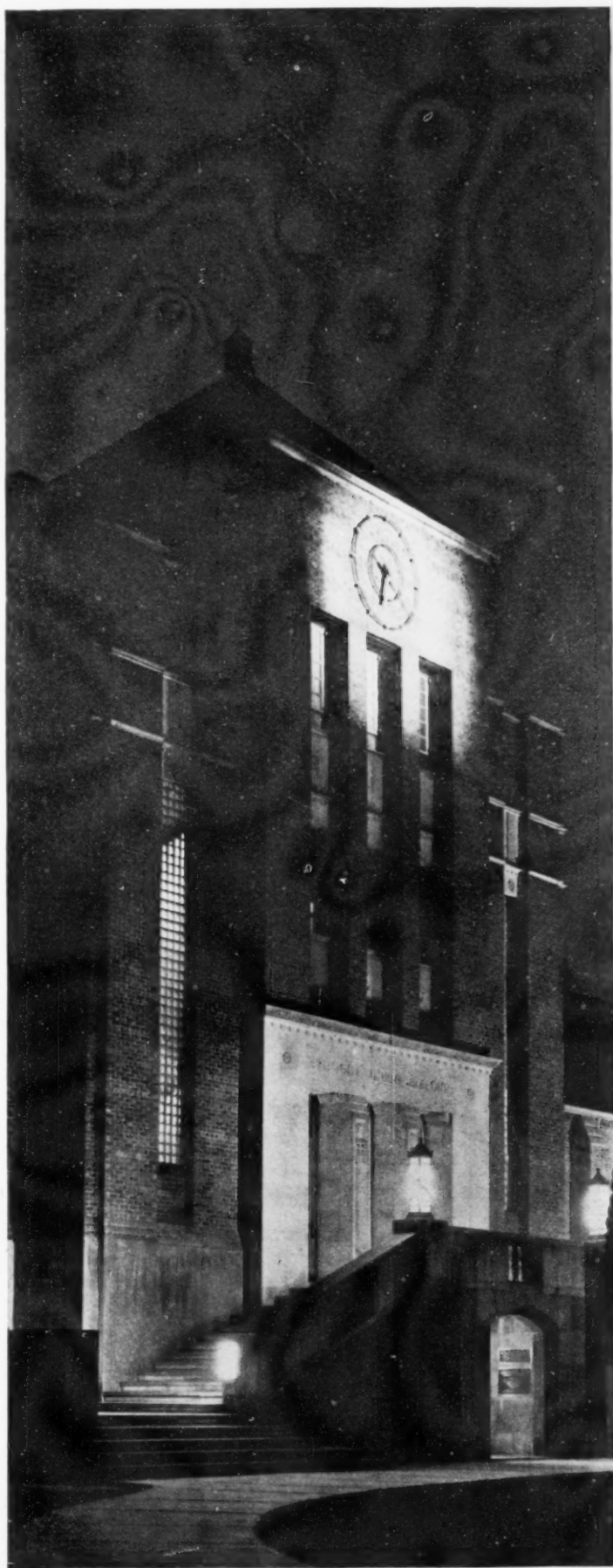
Business Education Clinic

- April 16

Spring Meeting of Chemistry
and Physics Teachers
of Indiana

Student Union Building

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the most famous trials of modern times
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